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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/543,028	07/21/2005	Emmanuel Legrand	047578/294908	8430
826 7590 05/05/2008 ALSTON & BIRD LLP BANK OF AMERICA PLAZA 101 SOUTH TRYON STREET, SUITE 4000 CHARLOTTE, NC 28280-4000			EXAMINER ALIE, GHASSEM	
			ART UNIT 3724	PAPER NUMBER
			MAIL DATE 05/05/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/543,028

**Applicant(s)**

LEGRAND, EMMANUEL

**Examiner**

GHASSEM ALIE

**Art Unit**

3724

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 March 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 11 and 12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 March 2008 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☒ Certified copies of the priority documents have been received in Application No. 10/543,026.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/S5108)
- Paper No(s)/Mail Date 03/11/08
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

***Election/Restrictions***

1. Newly submitted claims 11-12 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: claim 1-10 which have originally presented and examined and newly submitted claims 11-12 are related as subcombinations disclosed as usable together in a single combination.

- I. Claim 5, drawn to a cutting head that includes, e.g., two strings are provided exiting in a first plane in diametrically opposed regions, and two strings exiting in a second plane adjacent to the first in diametrically opposed regions.
- II. Claims 11-12, drawn to a cutting head including a mutually closest two planes are mutually spaced from each other by a distance (H2). It should be noted that claim 1 does not require the two mutually closest planes to be spaced from each other by a distance (H) which is 1.8 times the height of the string. In other words, any two planes, no matter how far are apart from each other, could be considered as “two planes (Pac, Pcd) mutually spaced by a distance (H)” as set forth in claim 1. However, claim 11 requires two closest planes to be spaced from one another in a distance  
(H) which is approximately 1.8 times the height of the string.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct if they do not overlap in scope and are not obvious variants, and if it is shown that at least one subcombination is separately usable.

In the instant case, e.g., subcombination I has a separate utility such as it could be used without the above-mentioned features set forth in invention II. Conversely, subcombination II has a separate utility such as it could be used without the above-mentioned features set forth in invention I. See MPEP § 806.05(d).

The examiner has required restriction between subcombinations usable together. Where applicant elects a subcombination and claims thereto are subsequently found allowable, any claim(s) depending from or otherwise requiring all the limitations of the allowable subcombination will be examined for patentability in accordance with 37 CFR 1.104. See MPEP § 821.04(a). Applicant is advised that if any claim presented in a continuation or divisional application is anticipated by, or includes all the limitations of, a claim that is allowable in the present application, such claim may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application.

3. Restriction for examination purposes as indicated is proper because all these inventions listed in this action are independent or distinct for the reasons given above and there would be a serious search and examination burden if restriction were not required because one or more of the following reasons apply:

(a) the inventions have acquired a separate status in the art in view of their different classification;

(b) the inventions have acquired a separate status in the art due to their recognized divergent subject matter;

(c) the inventions require a different field of search (for example, searching different classes/subclasses or electronic resources, or employing different search queries);

(d) the prior art applicable to one invention would not likely be applicable to another invention;

(e) the inventions are likely to raise different non-prior art issues under 35 U.S.C. 101 and/or 35 U.S.C. 112, first paragraph.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 11-12 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

#### ***Drawings***

4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the motor set forth in claim 10 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the

remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

5. The amendment filed on 03/03/08 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: Amended Fig. 2 now showing a motor on the central orifice 1100. The motor and its location are not originally disclosed. It is not clear where the motor is connected to and how it is connected to the cutting head or orifice 1100.

Applicant is required to cancel the new matter in the reply to this Office Action.

### ***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-2, 3-4, and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Jones et al. (4,905,465), hereinafter Jones '465. Regarding claim 1, as best understood, Jones '465 teaches a cutting head "A" for a brush cutter or an edge trimmer including a plurality of string outlets "F" for a plurality of cutting strings "E". Jones '465 also teaches that the axes of the cutting strings outlets "E" are distributed in at least two planes mutually spaced by a distance greater than 1.8 times the height or thickness of the string "E". It should be noted that the first top holes "F" around the rim "D" are located in a first plane. The last holes "F" at the bottom of the rim "D" are located in a second plane. The distance between the first holes or outlets in the first plane to the last holes or outlets in the second plane is at least greater than 1.8 times the height or thickness of the string. Jones '465 also teaches that each plane the respective string outlets are at the same level, and in that all planes the direction of rotation of the head is the same. See Figs. 1-18 in Jones '465.

Regarding claim 2, as best understood, Jones '465 teaches everything noted above including that the at least two planes are mutually spaced by a distance less than or equal to approximately 5 times the height of each string.

Regarding claims 3-4, Jones '465 teaches everything noted above including that the peripheral direction of the head, the strings existing in a first plane are alternated with the string alternated with the strings exiting in a second plane adjacent to the first. Jones also teaches that the strings exit the head in a regularly distributed manner.

Regarding claim 10, Jones '465 teaches everything noted above including a motor suitable for driving in rotation the cutting head set forth in claim 1.

*Claim Rejections - 35 USC § 103*

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-6 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones et al. (5,048,278), hereinafter Jones '278. Regarding claim 1, as best understood, Jones '278 teaches a cutting head 'R' for a brush cutter or an edge trimmer including a plurality of string outlets 52, 54 for a plurality of cutting strings 10. Jones '278 also teaches that the axes of the cutting strings outlets 52, 54 are distributed in at least two planes mutually spaced by a distance greater than the height or thickness of the string 10. It should be noted that the outlet 52 and its opposite outlet 52 is along a plane that is distance from the plane along which the outlet 54 and its opposite outlet 50 are located. Jones '278 also teaches that each plane the respective string outlets are at the same level, and in that all planes the direction of rotation of the head is the same. See Figs. 1-18 in Jones '465. See Figs. 1-6 in Jones '278.

Jones '278 does not explicitly teach that the distance between the planes is greater or equal 1.8 times the height of the string. However, the distance between the planes could be 1.8 times or greater than the thickness of a string which has a lesser height or greater height. In other words, the distance between the places could be 1.8 to 5 times a thin string. In addition, Jones '278 teaches a distance between the planes that appears to be 1.8 times the height of the string, Jones '278 does not positively disclose that the distance between the two planes is 1.8 times or greater than the height of the string. However, it would have been



obvious to one having ordinary skill in the art at the time the invention was made to select the distance between the two planes or the height of the string in a manner that the distance between the two planes is 1.8 times or greater than the height of the string, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Regarding claim 2, as best understood, Jones '278 teaches everything noted above including that the at least two planes are mutually spaced by a distance less than or equal to approximately 5 times the height of each string.

Regarding claims 3-4, Jones '278 teaches everything noted above including that the peripheral direction of the head, the strings existing in a first plane are alternated with the string alternated with the strings exiting in a second plane adjacent to the first. Jones also teaches that the strings exit the head in a regularly distributed manner.

Regarding claims 5-6, Jones '278 teaches everything noted above including that the two strings 10 are provided exiting in a first plane in diametrically opposed regions, and two strings exiting in a second plane adjacent to the first, in diametrically opposed regions also, in the string outlets 52, 54 are distributed approximately 90 degrees in the peripheral direction. Jones '278 also teaches that each string 10 has a ridge, and in that the head includes means 30 for maintaining each string in an orientation such its cutting ridge is in a position to lead the attack on plants. It should be noted that the string 10 three ridges since it has triangular shape. Therefore, one of the ridges is always oriented in a position to lead the attack on plants.

Regarding claim 10, Jones '278 teaches everything noted above including a motor suitable for driving in rotation the cutting head set forth in claim 1.

10. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jones '278 in view of Fogle (5,463,815). Regarding claim 7, Jones '278 teaches everything noted above except that each string is substantially square. However, the use of circular, square, and other shapes of strings is well known in the art such as taught by Fogle. See Figs. 1-8 in Fogle. It would have been obvious to a person of ordinary skill in the art to provide the cutting head of Jones '278 with square-shaped strings, as taught by Fogle, since different shape of strings works the same as clearly taught by Fogle, and one can be substituted for another.

11. Claims 8-9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jones '278 in view of Rouse (4,756,146). Regarding claims 8-9, Jones '278 teaches everything noted above except the head is implemented by asserting parts of general disc shape defining string semi-channels opposite one another. It should be noted that Jones '278 teaches that the head is formed from one disc shape part. However, the use of head formed from two disc shape parts is well known in the art such as taught by Rouse. See Figs. 1-4 in Rouse. It would have been obvious to a person of ordinary skill in the art to form the cutting head of Jones '278 from two disk shape parts as an alternative manner that facilitates replacement of the strings.

#### ***Response to Amendment***

12. Applicant's arguments filed on 03/03/08 have been fully considered but they are not persuasive.

Applicant's argument that Jones '465 does not teach that the holes F are spaced from one another a distance approximately 1.8 times the height of the string is not

persuasive. As stated above, the first top holes "F" around the rim "D" are located in a first plane. The last holes "F" at the bottom of the rim "D" are located in a second plane. The distance between the first holes or outlets in the first plane to the last holes or outlets in the second plane is at least greater than 1.8 times the height or thickness of the string. Jones '465 also teaches that each plane the respective string outlets are at the same level, and in that all planes the direction of rotation of the head is the same. See Figs. 1-18 in Jones '465. It should be noted that the claim1 does not recite that the distance between the tow closest planes is about 1.8 times the thickness pf the string, as set forth in withdrawn claim 11.

Applicant's argument that Jones' 278 does not teach that the distance between the two planes is approximately equal or greater than 1.8 times the thickness of the string is not persuasive. First, it appears that the distance between the planes Jones '278 is approximately 1.8 times the height of the string. Second, Jones '278 may not positively disclose that the distance between the two planes is 1.8 times or greater than the height of the string. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to select the distance between the two planes or the height of the string in a manner that the distance between the two planes is 1.8 times or greater than the height of the string, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

### ***Conclusion***

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final

action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ghassem Alic whose telephone number is (571) 272-4501. The examiner can normally be reached on Mon-Fri 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer Ashley can be reached on (571) 272-4502. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, SEE <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Art Unit: 3724

GA

May 1, 2008

/Ghassem Alie/

Primary Examiner, Art Unit 3724